DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No. 062TVP01 Issue Date: June 9, 2003
Application No. 62 Expiration Date: June 30, 2008

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50 issues an operating permit to the Permittee, Union Oil Company of California, for the operation of the Anna Platform.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

All facility-specific terms and conditions of Air Quality Control Permit-to-Operate 9423-AA010, amendment #3 have been incorporated into this operating permit.

This Operating Permit becomes effective July 1, 2003

John F. Kuterbach, Manager

Air Permits Program

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List of Abbreviations Used in this Permit

AAC .....Alaska Administrative Code
ADEC.....Alaska Department of Environmental Conservation
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT.....Best Available Control Technology
C.F.R. .....Code of Federal Regulations
CO .....Carbon Monoxide
dscf.....Dry standard cubic foot
EPA .....US Environmental Protection Agency
gr./dscf .....grain per dry standard cubic foot (1 pound = 7000 grains)
GPH.....gallons per hour
HAPs or HACs.....Hazardous Air Pollutants or Hazardous Air Contaminants [*HAPs* or *HACs* as defined in AS 46.14.990(14)]
ID .....Source Identification Number
kPa.....kiloPascals
MACT .....Maximum Achievable Control Technology
MR&R.....Monitoring, Recordkeeping, and Reporting
NESHAPs .....Federal National Emission Standards for Hazardous Air Pollutants *[NESHAPs* as defined in 40 C.F.R. 61]
NO_X.....Nitrogen Oxides
NSPS .....Federal New Source Performance Standards [*NSPS* as defined in 40 C.F.R. 60]
ppmw.....Parts per million by weight
ppmv .....Parts per million by volume
PS .....Performance specification
PSD .....Prevention of Significant Deterioration
RM .....Reference Method
SIC. .....Standard Industrial Classification
SO_2 .....Sulfur dioxide
TPH .....Tons per hour
tpy .....Tons per year
VOC .....volatile organic compound [*VOC* as defined in 18 AAC 50.990(103)]
wt% .....weight percent

Section 1. Identification

Names and Addresses

Permittee:	Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247
Facility Name:	Anna Platform
Location:	60˚ 51′ 54″ North; 151˚ 36′ 18″ West
Physical Address:	Upper Cook Inlet, Alaska
Owner:	Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247
Operator:	Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247
Permittee's Responsible Official	Dale Haines, Unocal Alaska Operations Manager
Designated Agent:	CT Corporation 801 West 10 th Street, Suite 300 Juneau, AK 99801
Facility and Building Contact:	Allen Dorman and Mark Atkins, Foremen Phone: (907) 776-6620 Fax: (907) 776-6625
Fee Contact:	David Bailey Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247 dbailey@unocal.com

SIC Code of the Facility:

1311- Crude Oil And Natural Gas

[18 AAC 50.350(b)(1), 1/18/97]

Section 2. General Emission Information

Emissions of Regulated Air Contaminants, as stated in the application:

Particulate Matter (PM-10), Sulfur Oxides (SO_x), Nitrogen Oxides (NO_x), Carbon Monoxide (CO), and Volatile Organic Compounds (VOCs).

Operating Permit Classifications as described under 18 AAC 50.325:

(1) **18 AAC 50.325(b)(1).** The Anna Platform site is a facility subject to this regulation because the plant emits or has the potential to emit 100 tons per year (tpy) or more of a regulated air contaminant.

(2) **18 AAC 50.325(b)(3).** The Anna Platform site is a facility subject to this regulation because the turbines, Source IDs 3 through 6 in Table 1 are subject to one of the New Source Performance Standards (NSPS) adopted by reference in 18 AAC 50.040(a)-(c).

(3) **18 AAC 50.325(c).** The Anna Platform site is a facility subject to this regulation because a facility described in 18 AAC 50.300(b - e) is within the category of facilities subject to AS 46.14.130(b)(4).

[18 AAC 50.350(b)(1), 1/18/97]

Section 3. Source Inventory and Description

Sources listed in Table 1 have specific monitoring, record keeping, or reporting conditions in this permit. Source descriptions and ratings are given for identification purposes only.

Table 1 - Source Inventory

ID	Tag No.	Source Name	Source Description	Rating/size	Installation Date
1	A-PM-0540	Solar Saturn MK-I Turbine	Compressor Drive-NG	1,000 Hp	6/68
2	A -PM-0550	Solar Saturn MK-I Turbine	Generator Drive (AC#3)-NG	750 kW	11/71
3	A -PM-0420	Solar Saturn T-1400 Turbine	Pump Drive (Bingham#1)-NG	1,400 Hp	6/96
4	A -PM-0430	Solar Saturn T-1400 Turbine	Pump Drive (Bingham#2-NG	1,400 Hp	10/97
5	A -PM-0560	Solar Saturn MK-II Turbine	Generator Drive(AC#2)-NG/Diesel	800 kW	8/85
6	A-PM-Turb1	Solar Centaur T-4000 Turbine	Drilling Turbine NG/Diesel	4,000 Hp	1981
7	A -PM-0390	Waukesha Triplex 1197G	Kobe Pump Drive-NG	150 Hp	1968
8	A -PM-0400	Waukesha Triplex 1197G	Kobe Pump Drive-NG	150 Hp	1968
9	A -PM-0410	Waukesha Triplex 1197G	Kobe Pump Drive-NG	150 Hp	1968
10	A -PM-0440	Waukesha Triplex 1905G	Kobe Pump Drive-NG	180 Hp	1968
11	A -PM-0450	Waukesha Triplex 1905G	Kobe Pump Drive-NG	180 Hp	1968
12	A -PM-0460	Waukesha Triplex 1905G	Kobe Pump Drive-NG	180 Hp	1968
13	A -PM-0028	Cat G-399 Engine	Generator Drive-NG	750 Hp	6/82
14	A -PM-0880	Waukesha 1197D Engine	Fire Water Pump Drive-Diesel	192 Hp	1966
15	A -PM-0034	Cat DE-308C Engine	Standby AC Gen. Drive-Diesel	125 kW	5/84
16	A -CR-0650	Cat D-330 Engine	L. C. Moore Crane (West)-Diesel	105 Hp	1966
17	A -CR-0651	Cat D-3406B Engine	Sea King Crane (East)-Diesel	325 Hp	11/88
18	A -PM-0021	Detroit Diesel D6-71 Engine	Compressor Drive-Diesel	165 Hp	3/79
19	A SP-SF/HP/LP	Flare(HP/LP) and Pilot	Safety/Operating Flares	700 MCF/day	1966

[18 AAC 50.350(d)(2), 1/18/97]

Section 4. Fee Requirements

1. Assessable Emissions. The Permittee shall pay to the department an annual emission fee based on the facility's assessable emissions as determined by the department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410. The department will assess fees per ton of each air contaminants that the facility emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of

1.1 the facility's potential to emit of 683 tpy; or

1.2 the facility's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the department, when demonstrated by

a. an enforceable test method described in 18 AAC 50.220;

b. material balance calculations;

c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or

1.3 other methods and calculations approved by the Department.

[18 AAC 50.346(a)(1), 5/3/02 & 50.410, 1/18/97]

2. Assessable Emission Estimates. Emission fees will be assessed as follows:

2.1 no later than March 31 of each year, submit an estimate of the facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emission Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795, the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates, or

2.2 if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit listed in condition 1.1.

[18 AAC 50.346(a)(1), 5/3/02 & 50.410, 1/18/97]

Section 5. Source-Specific Requirements

Fuel-Burning Equipment

3. **Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source IDs 1 - 19 listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:

a. more than 20 percent for a total of more than three minutes in any one hour[1],

[18 AAC 50.055(a)(1), 1/18/97 & 18 AAC 50.350(d)(1)(C), 6/21/98]
[40 CFR 52.70, 11/18/98]

b. more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.055(a)(1) & 50.346(c), 5/3/02 & 18 AAC 50.350(d)(1)(C), 6/21/98]

3.1 Monitor, record and report visible emissions in accordance with Section 12.

[18 AAC 50.350(g) - (i), 5/3/02]

4. **Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from Source IDs 1 - 19 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b) 1/18/97; 18 AAC 50.350(d)(1)(C), 6/21/98 & 18 AAC 50.346(c), 5/3/02]

4.1 Monitor, record and report according to Section 12.

[18 AAC 50.350(g) - (i), 5/3/02]

5. **Sulfur Compound Emissions**. In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from Source IDs 1 - 19 to exceed 500 ppmv averaged over three hours.

[18 AAC 50.055(c) & 18 AAC 50.350(d)(1)(D), 1/18/97 & 18 AAC 50.346(c), 5/3/02]

For Dual-Fuel Turbines Source IDs 5 & 6 and Diesel Fired Engines, Source IDs 14 - 18

5.1 The Permittee shall do one of the following for each shipment of diesel fuel received:

a. if the fuel grade requires a sulfur content less than 0.5% by weight, keep receipts that specify fuel grade and amount; or

b. if the fuel grade does not require a sulfur content less than 0.5% by weight, keep receipts that specify fuel grade and amount and

(i) test the fuel for sulfur content; or

[1] For purposes of this permit, the "more than three minutes in any one hour" criterion in this condition and condition 15 will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/3/02 is adopted by the U.S. EPA. The six-minute average standard is enforceable only by the State for Source IDs 1 - 19 until 18 AAC 50.055(a)(1), dated May 3, 2002 is approved by EPA into the SIP at which time this standard becomes federally enforceable.

(ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.

5.2 Fuel testing under condition 5.1 must follow an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the department.

5.3 If a load of fuel contains greater than 0.75 % sulfur by weight, the Permittee shall calculate SO_2 emissions in PPMV using either Section 14 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

[18 AAC 50.350(g), 1/18/97; 18 AAC 50.350(g) - (i) & 18 AAC 50.346(c), 5/3/02]

5.4 The Permittee shall report as follows:

a. If SO_2 emissions are calculated under condition 5.3 to exceed 500 ppmv, the Permittee shall report under condition 41. When reporting under this condition, include the calculation under Section 14.

b. The Permittee shall include in the operating report required by condition 43

(i) a list of the fuel grades received at the facility during the reporting period;

(ii) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur of each shipment; and

(iii) for fuel with a sulfur content greater than 0.75 percent, the calculated SO_2 emissions in ppmv.

[18 AAC 50.346(c) & 350(g) - (i), 5/3/02]

For Dual-Fuel Fired Equipment, Source IDs 5 & 6 and Gas Fired Source IDs 1- 4, 7- 13

5.5 Monitoring - The Permittee shall analyze a representative sample of the fuel gas semi-annually to determine the hydrogen sulfide concentration using length-of-stain detector tubes per ASTM Methods D4810-88 and D4913-89, or Gas Producer's Association Method 2377-86.

[18 AAC 50.350(g), 1/18/97]

5.6 Recordkeeping - Record the hydrogen sulfide (H_2S) concentration of the gas required under condition 5.5.

[18 AAC 50.350(h), 5/3/02]

5.7 Reporting

a. Report under condition 41 whenever the H_2S concentration of the gas obtained or analyzed in condition 5.5 exceeds 4,000 ppmv.

b. Attach copies of the records required by condition 5.6 with the operating report required by condition 43.

[18 AAC 50.350(i), 1/18/97]

Federal New Source Performance Standards, Subpart A, for Turbines Source IDs 3 through 6

6. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of Source IDs 3 through 6, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for Source IDs 3 through 6 is inoperative.

[18 AAC 50.040(a)(1), 7/2/00 & 18 AAC 50.350(h), 5/3/02]
[40 C.F.R. 60.7(b), Subpart A, 7/1/02]

7. NSPS Subpart A, Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate Source IDs 3 through 6 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Department will determine whether acceptable operating and maintenance procedures are being used based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of Source IDs 3 through 6.

[18 AAC 50.350(h), 5/3/02]
[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.11(d), Subpart A, 7/1/02]
[18 AAC 50.350(d)(1)(D), 6/21/98]

8. NSPS Subpart A, Concealment of Emissions. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in conditions 10 and 12. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.12, Subpart A, 7/01/01]

9. NSPS Subpart A, Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of the standards set forth in conditions 10 and 12 nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether Source IDs 3 through 6 would have been in compliance with the applicable requirements of 40 C.F.R. Part 60 if the appropriate performance or compliance test or procedure had been performed.

[18 AAC 50.040(a)(1), 8/15/02]
[40 C.F. R.. 60.11(g), Subpart A, 7/1/01

Turbines Subject to NSPS Subpart GG

10. NSPS Subpart GG NO_X Standard. The Permittee shall not allow the corrected exhaust gas concentration of NO_X in ppmv from Source IDs 3, 4 and 5 to exceed 150 ppmv NO_X at 15 percent O_2 and ISO conditions except during startup shutdown or malfunction periods.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 CFR 60.332(a)(2) and 60.8(c), Subpart GG 7/1/01]

11. NO_X Monitoring, Recordkeeping, and Reporting for NSPS Subpart GG Turbines

11.1 **NSPS Subpart GG Fuel Nitrogen Monitoring Waiver.** Nitrogen monitoring of fuel gas for Source IDs 3, 4 and 5 is waived. If the quality of fuel changes such that nitrogen content increases substantially or the source of the fuel changes, Unocal shall sample for nitrogen within two weeks of the change and shall notify EPA Region 10 within 30 days.

[EPA Custom Fuel Monitoring Schedule for Unocal Cook Inlet Facilities issued 10/17/02]
[40 CFR 60.334(b)(2), Subpart GG, 7/01/01]

11.2 **Periodic Testing**.

a. Initial Periodic Testing. For each turbine subject to condition 10 that operates for 400 hours or more in any 12 month period during the life of this permit, the Permittee shall satisfy either condition 11.2a(i) or 11.2a(ii).

(i) For existing turbines not represented by emission data described in condition 11.2a(ii), the Permittee shall conduct a NO_x and O_2 source test under 40 C.F.R. 60, Appendix A-7, Method 20 within three years after issuance of this permit

1. for each turbine, or

2. on one turbine to represent a group of turbines, if allowed to do so under condition 11.3.

(ii) If a test following 40 C.F.R. 60, Appendix A-7, Method 20 or following another protocol approved by the Department has been conducted on a turbine within two years before the issuance date of this permit, and the test shows that emissions at maximum load are less than 90 percent of the emission limit in condition 10, then

1. the Permittee may use those test results to represent emissions from that turbine or for a group of turbines if allowed under condition 11.3 until the testing of condition 11.2a(ii)2 is performed; and

2. the Permittee shall conduct a Method 20 test on each turbine, or on one of a group of turbines as allowed under condition 11.3, within the 5 years of the permit term.

b. **Higher Tier Testing.** For each turbine with test results under condition 11.2a that are 90 percent or more of the emission limit of condition 10, or for which emissions will equal or exceed 90 percent of the emission limit at maximum load, as shown through condition 11.4, the Permittee shall conduct an additional Method 20 test for the turbine within one year of the test under condition 11.2a. The Permittee shall conduct at least one additional test per year until at least two consecutive tests show that emissions for the turbine are less than 90 percent of the limit at loads up to maximum load.

11.3 **Substituting Test Data.** The Permittee may use a Method 20 test under conditions 11.2a or 11.2b performed on only one of a group of turbines to satisfy the requirements of those conditions for the other turbines in the group if

a. the Permittee demonstrates that test results are less than 90 percent of the emission limit of condition 10 and are projected under condition 11.4 to be less than 90 percent of the limit at maximum load;

b. for any source test done after the issuance date of this permit, the Permittee identifies in a source test plan under condition 33.

(i) the turbine to be tested;

(ii) the other turbines in the group that are to be represented by the test; and

(iii) why the turbine to be tested is representative, including that each turbine in the group

1. is located at a facility operated and maintained by the Permittee;
2. is the same family and make and has the same injector and combustor designs; and
3. uses the same fuel type; and

c. for any source test done before the issuance date of this permit and used under condition 11.2a(ii), the Permittee

(i) demonstrates why the test results are representative of emissions from the entire group of turbines, including that each turbine in the group

1. is located at a facility operated and maintained by the Permittee;
2. is the same family and make and has the same injector and combustor designs;
3. uses the same fuel type; and

(ii) submits all results of source testing that has been performed by the Permittee on each turbine in the group, regardless of the date of the test, and certifies that the submittal is complete, consistent with 18 AAC 50.205.

11.4 Load.

a. The Permittee shall conduct all tests under condition 11.2 in accordance with 40 C.F.R. 60.335(c)(3), except as otherwise approved in writing by the Department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and facility operating conditions in effect at the time of the test.

b. The Permittee shall demonstrate in the source test plan for any test performed after the issue date of this permit whether the test is scheduled when maximum NO_x emissions are expected.

c. If the highest operating rate tested is less than the maximum load of the tested turbine or another turbine represented by the test data,

(i) for each such turbine the Permittee shall provide to the Department as an attachment to the source test report

1. additional test information from the manufacturer or from previous testing of units in the group of turbines; if using previous testing of the group of turbines, the information must include all available test data for the turbines in the group, and

2. a demonstration based on the additional test information that projects the test results from condition 11.2 to predict the highest load at which emissions will comply with the limit in condition 10;

(ii) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed the limit of condition 10;

(iii) the Permittee shall comply with a written finding prepared by the Department that

1. the information is inadequate for the Department to reasonably conclude that compliance is assured at any load greater than the test load, and that the Permittee must not exceed the test load;

2. the highest load at which the information is adequate for the Department to reasonably conclude that compliance assured is less than maximum load, and the Permittee must not exceed the highest load at which compliance is predicted, or

3. the Permittee must retest during a period of greater expected demand on the turbine; and

(iv) the Permittee may revise a load limit by submitting results of a more recent Method 20 test done at a higher load, and, if necessary, the accompanying information and demonstration described in condition 11.4c(i); the new limit is subject to any new Department finding under condition 11.4c(iii) and

d. In order to perform a Method 20 emission test, the Permittee may operate a turbine at a higher load than that prescribed by condition 11.4c.

e. For the purposes of conditions 11.2a through 11.6, maximum load means the hourly average load that is the smallest of

(i) 100 percent of manufacturer's design capacity of the gas turbine at ISO standard day conditions;

(ii) the highest load allowed by an enforceable condition that applies to the turbine; or

(iii) the highest load possible considering permanent physical restraints on the turbine or the equipment which it powers.

11.5 **Recordkeeping**.

a. The Permittee shall comply with the following for each turbine for which a demonstration under condition 11.4c does not show compliance with the limit of condition 10 at maximum load.

(i) The Permittee shall keep records of

1. load; or
2. as approved by the Department, surrogate measurements for load and the method for calculating load from those measurements.

(ii) Records in condition 11.5a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under condition 11.4c(i)2 that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under condition 11.4c(iii), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

b. For any turbine subject to condition 10, that will operate less than 400 hours in any 12 consecutive months, keep monthly records of the hours of operation. If a turbine that normally operates less than 400 hours exceeds that total during any 12 month period,

(i) test according to condition 11.2; or

(ii) if it is no longer possible to meet that schedule, test within one year of exceeding 400 hours in 12 consecutive months.

11.6 **Reporting**.

a. In each operating report under condition 43 the Permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under condition 11.4c

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under condition 11.5a during the period covered by the operating report.

b. In each operating report under condition 43 for each turbine for which the testing described in condition 11.2 was not required because the turbine normally operates less than 400 hours in any 12 months, the Permittee shall identify

(i) the turbine;

(ii) the highest number of operating hours for any 12 months ending during the period covered by the report; and

(iii) any turbine that operated for 400 or more hours.

c. The Permittee shall report under condition 41 if

(i) a test result exceeds the emission standard;

(ii) Method 20 testing is required under condition 11.2 or 11.5b but not performed, or

(iii) the turbine was operated at a load exceeding that allowed by conditions 11.4c(ii) and 11.4c(iii); exceeding a load limit is deemed a single violation rather than a multiple violation of both the load limit and the underlying emission limit.

[18 AAC 50.350(g) - (i), 5/3/02, 50.220(a) - (c), 1/18/97, & 50.040(a)(1), 7/2/00]
[40 CFR 60.8(b), 7/01/01]

12. NSPS Subpart GG Sulfur Standard. The fuel used in Source IDs 3 through 6 shall have a sulfur content not exceeding 0.8 percent by weight.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 CFR 60.333(b), Subpart GG, 7/01/01]

12.1 Fuel gas sulfur monitoring shall be performed semi-annually for fuel gas with a hydrogen sulfide concentration less than 2,000 ppmw and daily for fuel gas with a hydrogen sulfide concentration greater than 2,000 ppmw. The hydrogen sulfide concentration used to determine the frequency shall be the most recent sample of the gas burned. Sampling results shall be reported annually to EPA Region 10 (Air Enforcement and Program Support Unit).

12.2 If the quality of fuel changes such that sulfur content increase substantially or the source of the fuel changes, Unocal shall sample for sulfur within two weeks of the change and shall notify EPA within 30 days.

[40 CFR 60.334(b), Subpart GG; 7/01/01]
[EPA Custom Fuel Monitoring Schedule for Unocal Cook Inlet Facilities, 10/17/02]

12.3 Monitor sulfur content of the fuel gas using the length of stain tube test described in ASTM Method D 4810-88 and D 4913-89, or Gas Producer's Association Method 2377-86, or another method approved by the EPA Administrator or his/her designee.

[EPA Custom Fuel Monitoring Schedule for Unocal Cook Inlet Facilities, 10/17/02]
[40 CFR 60.334(b)(2), Subpart GG, 7/01/01]

12.4 The fuel sulfur analysis required under condition 12.1 may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

[40 C.F.R. 60.335(e), 7/01/01]

12.5 The requirements of this condition are superceded in the event that the EPA issues a revised alternative fuel monitoring schedule for the Anna Platform turbines.

[18 AAC 50.350(g) - (i), 5/3/02]

12.6 Recordkeeping – Keep records as required by condition 12.1.

12.7 Reporting – Submit a summary report of the results from condition 12.1 with the operating report required by condition 43.

[18 AAC 50.350(g) - (i), 5/3/02]

12.8 Report per condition 41 when the emission limit in condition 12 is exceeded.

[18 AAC 50.350(i), 7/2/00]
[18 AAC 50.040(a)(2)(V), 7/2/00]
[Federal Citation: 40 C.F.R. 60.333(a) & (b), 7/1/01]

Operating Hours Monitoring for Source IDs 1 - 18

13. The Permittee shall monitor and record the hours of operation of Source IDs 1 -18 for each month.

[Operating Permit No. 9423-AA010-Amendment #3, 7/8/96]
[18 AAC 50.350(d)(1)(D), 1/18/97 & 18 AAC 50.350(g) - (h), 5/3/02]

13.1 In the operating report required by condition 43, report the monthly hours of operation for Source IDs 1–18. Additionally for Source IDs 14 - 18, report the consecutive twelve-month totals for hours of operation for each source through each month during the reporting period. For Source IDs 5 and 6, report the consecutive twelve-month totals for hours of operation on liquid fuel for each source through each month during the reporting period.

[18 AAC 50.350(i), 1/18/97]

Section 6. Insignificant Sources

This section contains the requirements that the Permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant sources at the facility. This section also specifies the testing, monitoring, recordkeeping, and reporting for insignificant sources that the Department finds necessary to ensure compliance with the applicable requirements. Insignificant sources are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.170 does not apply to insignificant sources.

14. For sources at the facility that are insignificant as defined in 18 AAC 50.335(q)-(v) that are not listed in this permit, the following apply:

14.1 the Permittee shall submit the compliance certifications of condition 44 based on reasonable inquiry;

14.2 the Permittee shall comply with the requirements of condition 24;

14.3 no other monitoring, recordkeeping, or reporting is required.

[18 AAC 50.346(b)(1), 5/3/02]

15. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from insignificant sources to reduce visibility through the exhaust effluent by any of the following:

15.1 greater than 20 percent for a total of more than three minutes in any one hour[2], or

[18 AAC 50.050(a)(2) & 18 AAC 50.055(a)(1), 1/18/97 & 40 CFR 52.70, 11/18/98]

15.2 more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.055(a)(1), 5/3/02]

16. The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1), 1/18/97]

17. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from an industrial process or fuel-burning equipment, to exceed 500 ppmv averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

[2] See footnote 1

Section 7. Generally Applicable Requirements

18. Asbestos NESHAP. The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152 of Subpart M and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(3), 8/15/02 & 50.350(d)(1), 1/18/97]
[40 C.F.R. 61, Subparts A & M and Appendix A, 7/1/99]

19. Halon Recycling and Disposal. The Permittee shall comply with the applicable standards for recycling and emission reduction of ozone depleting substances set forth in 40 C.F.R Part 82, Subparts F, G, and H.

[18 AAC 50.040(d) & 50.350(d)(1), 1/18/97]
[40 C.F.R. Part 82, Subparts F, G, & H; 7/1/01]

20. Good Air Pollution Control Practice[3]. The Permittee shall do the following for Sources IDs 1, 2, 7 through 13, and 19:

20.1 perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

20.2 keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format;

20.3 keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.346(b)(2), 5/3/02]

21. Dilution. The Permittee shall not dilute emissions with air to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

22. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the Department.

[18 AAC 50.055(g), 1/18/97]

23. Open Burning. The Permittee shall not conduct open burning at the facility.

[18 AAC 335(g), 1/18/97]

24. Air Pollution Prohibited. The Permittee shall not cause any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.110, 5/26/72]

Monitoring, Record Keeping, and Reporting for Air Pollution Prohibited

[3] Condition 20 is enforceable only by the State until the new regulations, dated May 3, 2002, are approved by EPA into the SIP at which time this standard becomes federally enforceable.

24.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 41.

24.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 24.

24.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the facility have caused or are causing a violation of condition 24; or

b. the department notifies the Permittee that it has found a violation of condition 24.

24.4 The Permittee shall keep records of

a. the date, time, and nature of all emissions complaints received;

b. the name of the person or persons that complained, if known;

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of condition 24; and

d. any corrective actions taken or planned for complaints attributable to emissions from the facility.

24.5 With each operating report under condition 43, the Permittee shall include a brief summary report which must include

a. the number of complaints received;

b. the number of times the Permittee or the department found corrective action necessary;

c. the number of times action was taken on a complaint within 24 hours; and

d. the status of corrective actions the Permittee or department found necessary that were not taken within 24 hours.

24.6 The Permittee shall notify the department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

[18 AAC 50.346(a)(2) & 18 AAC 50.350(h) – (i), 5/3/02]

25. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235, causes emissions in excess of a technology-based emission standard[4], the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under condition 41 requires information on the steps taken to minimize emissions. The report required under condition 41 is adequate monitoring for compliance under this condition.

[18 AAC 50.235(a) & 50.350(f)(3), 1/18/97]

26. Permit Renewal. To renew this permit, the Permittee shall submit a complete application under 18 AAC 50.335 no sooner than **December 30, 2006** and no later than **December 30, 2007**.

[18 AAC 50.335(a), 1/18/97]

[4] *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Section 8. General Source Testing and Monitoring Requirements

27. Requested Source Tests. In addition to any source testing explicitly required by this permit, the Permittee shall conduct source testing as requested by the department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a) 1/18/97 & 18 AAC 50.345(a)&(k), 5/3/02]

28. Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b) & 50.350(g), 1/18/97]

28.1 at a point or points that characterize the actual discharge into the ambient air; and

28.2 at the maximum rated burning or operating capacity of the source or another rate determined by the department to characterize the actual discharge into the ambient air. This requirement does not apply to visible emissions tests conducted pursuant to Section 12.

29. Reference Test Methods. Except as approved by the Department, the Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

29.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.040(a), 8/15/02]
[18 AAC 50.220(c)(1)(A) & 50.350(g), 1/18/97]
[40 C.F.R. 60, 7/1/01]

29.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 8/15/02; 50.220(c)(1)(B) & 50.350(g), 1/18/97]
[40 C.F.R. 61, 12/19/96]

29.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 6/1/02]
[18 AAC 50.220(c)(1)(C) & 50.350(g), 1/18/97]
[40 C.F.R. 63, 7/1/01]

29.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method-9 and may use the form in Section 13 to record data.

[18 AAC 50.030, 5/3/02]
[18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

29.5 Source testing for emissions of particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(4), 8/15/02]
[18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]
[40 C.F.R. 60, Appendix A, 7/1/01]

29.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201a and 202.

[18 AAC 50.220(c)(1)(F) & 18 AAC 50.350(g), 1/18/97 & 18 AAC 50.035(b)(2), 7/2/00]
[40 C.F.R. 51, Appendix M, 7/1/01]

29.7 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.220(c)(2) & 50.350(g), 1/18/97 & 18 AAC 50.040(c)(19), 7/2/00]
[40 C.F.R. 63, Appendix A, Method 301, 4/5/02]

30. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must only include the volume of gases formed from the theoretical combustion of fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3) & 18 AAC 50.350(g); 1/18/97; & 18 AAC 50.990(88), 5/3/02]

31. Test Exemption. The Permittee is not required to comply with conditions 28.2, 33, 34, and 35 (Operating Conditions, Test Plans, Test Notifications and Test Reports) when the exhaust is observed for visible emissions under condition 55 or condition 56.

[18 AAC 50.345(a), 5/3/02]

32. Test Deadline Extension. The Permittee may request an extension to a source test deadline established by the department. The Permittee may delay a source test beyond the original deadline only if the department's appropriate division director or designee approves the extension in writing. This is a state-only condition.

[18 AAC 50.345(a)&(l), 5/3/02]

33. Test Plans. Before conducting any source tests, the Permittee shall submit a plan to the department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the source will operate during the test and how the Permittee will document this operation. The Permittee shall submit a complete plan within 60 days of receiving a request under condition 28 and at least 30 days before the scheduled date of any test unless the department agrees in writing to some other time period. Retesting may be done without resubmitting the plan. The Permittee is not required to comply with this condition when the exhaust is observed for visible emissions.

[18 AAC 50.350(b)(3) & 18 AAC 50.350(g), 1/18/97; & 18 AAC 50.345(a)&(m), 5/3/02]

34. Test Notification. At least 10 days before conducting a source test, the Permittee shall give the department written notice of the date and the time the source test will begin. The Permittee is not required to comply with this condition when the exhaust is observed for visible emissions.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a)&(n), 5/3/02]

35. Test Reports. Within 60 days after completing a source test, the Permittee shall submit two copies of the results, to the extent practical, in the format set out in the *Source Test Report Outline* of Volume III, Section IV.3 of the State Air Quality Control Plan, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results as set out in 18 AAC 50.345(j). If requested in writing by the department, the Permittee must provide preliminary results in a shorter period of time specified by the department. The Permittee is not required to comply with this condition when the exhaust is observed for visible emissions.

[18 AAC 50.350(b)(3), 1/18/97; 18 AAC 50.350(h) – (i) & 18 AAC 50.345(a)&(o), 5/3/02]

36. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in conditions 4 and 16, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f) & 50.350(g), 1/18/97]

Section 9. General Recordkeeping, Reporting, and Compliance Certification Requirements

37. Certification. The Permittee shall certify all reports, compliance certifications, or other documents submitted to the department and required under the permit by including the signature of a responsible official for the permitted facility following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.205, 18 AAC 50.350(b)(3) & 18 AAC 50.350(i) 1/18/97; & 18 AAC 50.345(a)&(j), 5/3/02]

38. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with condition 37.

[18 AAC 50.350(i), 1/18/97]

39. Information Requests. The Permittee shall furnish to the department, within a reasonable time, any information the department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the department copies of records required to be kept by this permit. The department may require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200 & 18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.350(g) – (i) & 18 AAC 50.345(a)&(i), 5/3/02]

40. Recordkeeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

40.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

40.2 records of all monitoring required by this permit, and information about the monitoring including:

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

b. sampling dates and times of sampling or measurements;

c. the operating conditions that existed at the time of sampling or measurement;

d. the date analyses were performed;

e. the location where samples were taken;

f. the company or entity that performed the sampling and analyses;

g. the analytical techniques or methods used in the analyses; and

h. the results of the analyses.

[18 AAC 50.350(h), 5/3/02]
[40 CFR 60.7(f), Subpart A, 7/1/01]

41. Excess Emission and Permit Deviation Reports.

41.1 Except as provided in condition 24, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commences or is discovered, report

(i) emissions that present a potential threat to human health or safety; and

(ii) excess emissions that the Permittee believes to be unavoidable;

b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;

c. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the emissions or deviation occurs or was discovered, except as provided in conditions 41.1c(ii) and 41.1c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the department provides written permission to report under condition 41.1c(i); and

(iii) for failure to monitor, as required in other applicable conditions of this permit.

41.2 When reporting excess emissions, the Permittee must report using either the department's on-line form, which can be found at www.dec.state.ak.us/dec/dawq/aqm/eeform.pdf, or, if the Permittee prefers, the form contained in Section 15 of this permit. The Permittee must provide all information called for by the form that is used.

41.3 When reporting a permit deviation, the Permittee must report using the form contained in Section 15 of this permit. The Permittee must provide all information called for by the form.

41.4 If requested by the department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 18 AAC 50.240(c) & 18 AAC 50.350(i), 1/18/97 & 18 AAC 50.346(c), 5/3/02]
[18 AAC 50.235(a)(2), 18 AAC 50.240(c), & 50.350(i), 1/18/97]

42. NSPS and NESHAP Reports. The Permittee shall:

42.1 Attach to the report required by condition 43 a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10 unless previously submitted to the Department.

42.2 Upon request by the Department, notify and provide a written copy of any EPA granted waiver of the federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

[18 AAC 350(i)(2), 1/18/97 & 18 AAC 50.040, 7/2/00]
[Federal Citation 40 C.F.R. 60 & 40 C.F.R. 61, 7/1/01]

43. Operating Reports. During the life of this permit, the Permittee shall submit to the Department an original and two copies of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

43.1 The operating report must include all information required to be in operating reports by other conditions of this permit.

43.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 43.1, either

a. The Permittee shall identify

(i) the date of the deviation;

(ii) the equipment involved;

(iii) the permit condition affected;

(iv) a description of the excess emissions or permit deviation; and

(v) any corrective action or preventive measures taken and the date of such actions; or

b. when excess emissions or permit deviations have already been reported under condition 41 the Permittee may cite the date or dates of those reports.

[18 AAC 50.350(d)(4), 18 AAC 50.350(f)(3) & 18 AAC 50.350(i), 1/18/97 & 18 AAC 50.345(a)&(j), 5/3/02]

43.3 The operating report must include a listing of emissions monitored under conditions 10, 12, and 55 which trigger additional testing or monitoring, whether or not the emissions monitored, exceed an emission standard. The Permittee shall include in the report

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

[18 AAC 50.350(d)(4), (f)(3) & (i); 1/18/97 & 18 AAC 50.346(b)(3), 5/3/02]

44. Annual Compliance Certification. Each year by March 31st, the Permittee shall compile and submit to the Department an original and two copies of an annual compliance certification report as follows:

44.1 For each permit term and condition set forth in Section 4 through Section 9 including terms and conditions for monitoring, reporting, and recordkeeping:

a. certify the compliance status over the preceding calendar year consistent with the monitoring required by this permit;

b. state whether compliance is intermittent or continuous; and

c. briefly describe each method used to determine the compliance status.

d. notarize the official's signature.

44.2 Submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(d)(4), (f)(3) & (i), 1/18/97 & 18 AAC 50.346(b)(3), 5/3/02]

Section 10. Standard Conditions Not Otherwise Included in the Permit

45. The Permittee must comply with each permit term and condition. Noncompliance constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated as not federally-enforceable, the Clean Air Act, and is grounds for:

45.1 an enforcement action,

45.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280, or

45.3 denial of an operating-permit renewal application.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(c), 5/3/02]

46. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(d), 5/3/02]

47. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of this permit.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(e), 5/3/02]

48. Compliance with permit terms and conditions is considered to be compliance with those requirements that are:

48.1 included and specifically identified in the permit, or

48.2 determined in writing in the permit to be inapplicable.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(b), 5/3/02]

49. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any operating permit condition.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(f), 5/3/02]

50. The permit does not convey any property rights of any sort, nor any exclusive privilege.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(g), 5/3/02]

51. The Permittee shall allow an officer or employee of the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator, to:

51.1 enter upon the premises where a source subject to the operating permit is located or where records required by the permit are kept,

51.2 have access to and copy any records required by the permit,

51.3 inspect any facilities, equipment, practices, or operations regulated by or referenced in the permit, and

51.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(h), 5/3/02]

Section 11. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.170, and based on information supplied in the facility application, this section of the permit contains the requirements determined by the Department not to be applicable to the Anna Platform.

52. Table 2 identifies the sources and facility classifications that are not subject to the specified requirements at the time of permit issuance. If any of the requirements in Table 2 become applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction, and/or an operating permit revision.

[18 AAC 50.350(l), 1/18/97]

Table 2 - Permit Shields Granted.

Source ID	Non Applicable Requirements	Reason for non-Applicability
Source ID 6	40 CFR 60.332(e)	40 CFR 60.332(e) exempts turbines with a heat input less than 100 MM Btu/hr that commenced construction prior to Oct. 3, 1982 from Subpart GG NO_x limits. Source ID 6 meets these criteria.
Source IDs 1 & 2	40 CFR 60, Subpart GG	Permittee did not commence construction, modification or reconstruction of these sources after October 3, 1977.
Facility	40 CFR 60, Subparts K, Ka, Kb	Permittee did not commence construction, modification or reconstruction of any tanks in these categories after June 11, 1973
Facility	40. C. F. R. 60 Subparts B, C, Ca, Cb, Da, Db, Dc, Ea, Eb, F, G, H, I, J, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z,	No "affected facilities" within the permitted facility.
Facility	40. C. F. R. 60 Subparts AA, AAa, BB, CC, DD, EE, FF, HH, KK, LL, MM, NN, PP, QQ, RR, SS, TT, UU, VV, WW, XX	No "affected facilities" within the permitted facility.
Facility	40 C.F.R. 60 Subparts AAA, BBB, DDD, FFF, GGG, HHH, III, JJJ, KKK, LLL, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, and VVV	No "affected facilities" within the permitted facility.
Facility	40 C.F.R. 61 Subparts B, C, D, E, F, H, I, J, K, L, N, O, P, Q, R, T, V, W, Y, BB and FF.	No "affected facilities" within the permitted facility.

Source ID	Non Applicable Requirements	Reason for non-Applicability
Facility	40 C.F.R. 63 Subparts A, B, F, G H, L, M, N, O, Q, R, T, W, X, and EE	No "affected facilities" within the permitted facility.
Facility	40 C.F.R. 63 Subparts HH & HHH	Facility is not a "major source" of HAPs as defined in 40 CFR 63.760(a). and 63.1271. In addition, permitted facility contains no "affected source" as defined in 40 CFR 63.760(b).
Facility	40 C.F.R. 62 Subpart G	Not an affected facility, operation, or industry.
Facility	40 CFR 82.1 Subpart A – Production and Consumption Controls	Facility does not produce, transform, destroy, import or export Class l or Group I or II substances or products.
Facility	40 CFR 82.30 Subpart B – Servicing of Motor Vehicle Air Conditioners	Facility does not service motor vehicle air conditioners
Facility	40 CFR 82.60 Subpart C -Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Facility is not a manufacturer or distributor of Class I and II products or substances.
Facility	40 CFR 82.80 Subpart D – Federal Procurement	Subpart applies only to Federal departments, agencies, and instrumentalities.
Facility	40 CFR 82.100 Subpart E- The Labeling of Products Using Ozone-Depleting Substances.	Facility is not a manufacturer or distributor of Class I and II products or substances.
Facility	40 CFR 82.158 Subpart F – Recycling and Emissions Reduction.	Facility does not manufacture or import recovery and recycling equipment.
Facility	40 CFR 82.160- Approved Equipment Testing Organizations	Facility does not contract equipment testing organizations to certify recovery and recycling equipment.
Facility	40 CFR 82.164 –Reclaimer Certification	Facility does not sell reclaimed refrigerant.
Facility	40 CFR 82, Subpart F, Appendix C - Method for Testing Recovery Devices for Use With Small Appliances	Facility is not a third party entity that certifies recovery equipment.
Facility	40 CFR 82, Subpart F, Appendix D - Standards for Becoming a Certifying Program for Technicians	Facility does not have a technician certification program.
Facility	40 CFR 82. 174(a) Subpart G - Significant New Alternatives Policy Program: Prohibitions	Facility does not manufacture substitute chemicals or products for ozone-depleting compounds.
Facility	40 CFR 82.270(a) Subpart H - Halon Emissions Reduction	Facility does not manufacture halon.
Facility	18 AAC 50.055(a)(2), Fuel Burning equipment standards, opacity emission limit of 30%, 3-minute average	No affected sources within the permitted facility.

Source ID	Non Applicable Requirements	Reason for non-Applicability
Facility	18 AAC 50.055(a)(4), (5) and (8), Fuel burning equipment standards, opacity emission limit of 20%, 6-minute average	No affected sources within the permitted facility.
Facility	18 AAC 50.055(a)(6) and (7), Fuel burning equipment standards, opacity emission limit of 10%, 6-minute average	No affected sources within the permitted facility.
Facility	18 AAC 50.055(b)(2) and (3), Fuel burning equipment standards, PM emission limit of 0.1 grains	No affected sources within the permitted facility.
Facility	18 AAC 50.055(b)(4), Fuel burning equipment standards, PM emission limit of 0.15 grains	No affected sources within the permitted facility.
Facility	18 AAC 50.055(b)(5) and (6), Fuel burning equipment standards, PM emission limit of 0.04 grains	No affected sources within the permitted facility.
Facility	18 AAC 50.055(d) and (e), Fuel burning equipment standards	No affected sources within the permitted facility.
Facility	18 AAC 50.060, Pulp Mills	Not an affected facility, operation or industry.
Facility	18 AAC 50.070 Marine Vessels, visible emission standards	Not an affected facility, operation or industry.
Facility	18 AAC 50.075, Wood fired heating device emission standards	No affected sources within the permitted facility.
Facility	18 AAC 50.085, Volatile liquid storage tank emission standards	Regulations only apply to tanks within the Port of Anchorage.
Facility	18 AAC 50.090 Volatile liquid loading racks and delivery emission standards	Regulations only apply to facilities within the Port of Anchorage.

Section 12. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

For Gas Fired Sources (Source IDs 1 through 4, 5 and 6 when firing on gas, and 7 through 13)

53. Visible Emissions: Monitoring, Record Keeping, and Reporting.

53.1 The Permittee shall use only gas as fuel in Source IDs 1 through 4 and 7 through 13. The Permittee shall certify in each operating report required under condition 43 that the source burned only gas.

53.2 When firing Source IDs 5 and 6 only on natural gas, the Permittee shall certify in each operating report required under condition 43 that the source burned only gas during that reporting period.

53.3 The Permittee shall report under condition 41 if any fuel is burned other than gas in Source IDs 1 through 4 and 7 through 13.

[18 AAC 50.350(g) – (i) & 18 AAC 50.346(c), 5/3/02]

54. Particulate Matter Emissions: Monitoring, Record Keeping, and Reporting. The Permittee shall comply with condition 53.

[18 AAC 50.350(g) – (i) & 18 AAC 50.346(c), 5/3/02]

Dual Fuel-Fired Turbines (while firing liquid fuel in Source IDs 5 & 6) & Liquid Fuel Sources 14 through 18

55. Visible Emissions Monitoring and Reporting. The Permittee shall perform the following visible emission monitoring and reporting for Source IDs 5, 6 and 14 through 18 as follows:

[18 AAC 50.350(g) – (i), 5/3/02]

55.1 Visible Emissions Monitoring – The Permittee shall perform an annual Method 9 visible emissions observation on Source IDs 14 through 18 if the operating hours exceed the thresholds in Table 3. Perform the observations, if required, between 10 and 14 months after the preceding observation on that source. The observation shall be conducted for 18 minutes to obtain 72 individual readings at 15-second intervals. If 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent, the Permittee shall perform corrective action under condition 56.

[18 AAC 50.350(f)(4), 1/18/97]

55.2 Visible Emissions Reporting – the Permittee shall include in the operating report required under condition 43 a summary of the results of all Method 9 readings performed during the reporting period under condition 55.1.

55.3 For Source IDs 5 and 6, if the operating hours on liquid fuel exceed 400 hours during any consecutive twelve-month period, monitor and report visible emissions for that source as provided in conditions 55.1 and 55.2.

56. Corrective Actions Based on Visible Emissions Observations. If required under condition 55.1, perform corrective action within 14 days and conduct a follow-up Method 9 observation under condition 55.1 within 30 days of completing the corrective action.

56.1 Record keeping – if applicable, keep a written record of the starting date, the completion date, and a description of any actions taken under condition 56 to reduce visible emissions.

56.2 Reporting – submit with the operating report required under condition 43 copies of any records required under condition 56.1.

[18 AAC 50. 350(f)(4), 1/18/97 & 50.350(g) – (i), 5/3/02]

57. Particulate Matter Monitoring for Liquid-Fired Turbines and Engines. The Permittee shall conduct source tests on Source IDs 5 and 6 to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with this condition 57:

57.1 Within six months of exceeding the criteria of condition 57.2a or 57.2b, either

a. conduct a PM source test according to the requirements set out in Section 8; or

b. make repairs so that emissions no longer exceed the criteria of condition 57.2 and observe emissions as described in 55 under load conditions comparable to when the initial opacity was documented.

57.2 Conduct the test according to condition 57.1 if

a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent, or

b. for a source with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.

57.3 During each one-hour PM source test run, observe the exhaust for 18 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.

57.4 The automatic PM source test requirement in conditions 57.1 and 57.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

57.5 Monitor, record and report operating hours for Source IDs 14 through 18 as provided in condition 13. If the operating hours during any consecutive twelve-month period exceed the operating hours threshold in Table 3, monitor and report visible emissions and particulate matter emissions if required for that source as provided in conditions 55 - 57.

Table 3 - Insignificant Emission Units, Thresholds.

Source ID	Operating Hours
14	670
15	770
16	1,220
17	396
18	781

[18 AAC 50.350(f)(4), 1/18/97 & 18 AAC 50.346(c), 50.350(g)-(i), 5/3/02]

58. Particulate Matter Reporting. - The Permittee shall report as excess emissions under condition 41 any time the results of a source test for particulate matter (PM) exceeds the PM emission limit stated in condition 4.

[18 AAC 50.350(g) – (i), 5/3/02]

Visible Emission Observations for Flares-Source ID 19

59. Visible Emissions Monitoring, Recordkeeping, and Reporting for Flares. The Permittee shall observe the first six flare events[5] occurring at Source ID 19 during the life of this permit[6].

[18 AAC 50.350(g)-(i), 5/3/02]

59.1 Monitor flare events using Method-9.

59.2 Record the following information for the observed event:

a. the flare(s) Source ID number;

b. results of the Method-9 observations;

[5] For purposes of this permit, a "flare event" is flaring of gas for greater than one hour as a result of scheduled lease operations, i.e. maintenance or well testing activities. It does not include non-scheduled lease operations, i.e. process upsets, emergency flaring, or de minims venting of gas incidental to normal operations.
[6] Flare events monitored within 12-months prior to permit effective date may count towards the six-event total.

c. reason(s) for flaring;

d. date, beginning and ending time of event; and

e. cumulative volume of gas flared from Source ID 19.

59.3 Until monitoring has been completed on the six flare events described in this condition, the Permittee shall either monitor each qualifying flare event or include in the next report required by condition 43 an explanation of the reason the event was not monitored. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available.

59.4 Attach copies of the records required by condition 59.2 with the operating report required by condition 43.

59.5 Report under condition 41 whenever the opacity standard in condition 3 is exceeded.

[18 AAC 50.350(f)(4), 1/18/97 & 18 AAC 50.350(g)-(i), 5/3/02]

Section 13. Visible Emissions Field Data Sheet

Certified Observer: _____

Company: _____

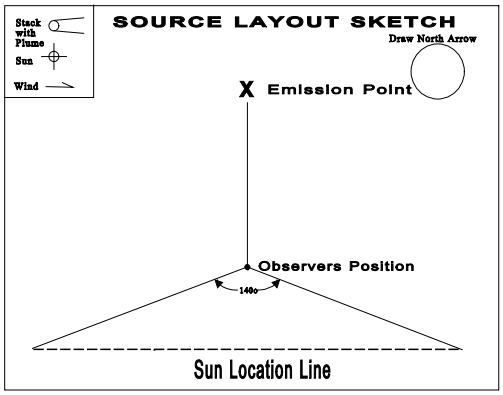
Location: _____

Test No.: _____ Date: _____

Source: _____

_____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description: Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Visible Emissions Observation Record

Page ___ of ___

Company & Facility _____
Certified Observer_____
Test Number _____
Clock Time & Date _____

Date:		Visibility Reduction Every 15 Seconds (Opacity)				Steam Plume (check if applicable)		Comments
Hr	Min	0	15	30	45	Attached	Detached	

Additional Information:

_____ _____
Observer Signature/Date Certified By/Date

Data Reduction:
Duration of Observation Period (minutes) _____
Duration Required by Permit (minutes) _____
Number of Observations _____
Number of Observations exceeding 20% _____
In Compliance with Three Minute Aggregate Opacity Limit? (yes or no) _____
Highest Six Minute Average Opacity (%)_____
In Compliance with Six Minute Opacity Limit? (yes or no) _____

Average Opacity Summary:

Test Number	Time Start—End	Opacity	
		Sum	Average

Section 14. SO_2 Material Balance Calculation

If the sulfur content of any fuel combusted is greater than 0.75% by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A = 31,200 x [**wt%S_{fuel}**] = 31,200 x _____ = _____

B = 0.148 x [**wt%S_{fuel}**] = 0.148 x _____ = _____

C = 0.396 x [**wt%C_{fuel}**] = 0.396 x _____ = _____

D = 0.933 x [**wt%H_{fuel}**] = 0.933 x _____ = _____

E = B + C + D = _____ + _____ + _____ = _____

F = 21 − [**vol%$_{dry}O_{2,\ exhaust}$**] = 21 − _____ = _____

G = [**vol%$_{dry}O_{2,\ exhaust}$**] ÷ F = _____ ÷ _____ = _____

H = 1 + G = 1 + _____ = _____

I = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ PPMV

The **wt%S_{fuel}**, **wt%C_{fuel}**, and **wt%H_{fuel}** are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition 5.1. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (**vol%$_{dry}O_{2,\ exhaust}$**) is obtained from oxygen meters, manufacturer's data, or from the most recent Orsat analysis at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if **wt%S_{fuel}** = 1.0%, then enter 1.0 into the equations not 0.01 and if **vol%$_{dry}O_{2,\ exhaust}$** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.350(g), 1/18/97]

Section 15. ADEC Notification Form

Fax this form to: (907) 262-7508 Telephone: (907) 262-8888

Union Oil Company of California
Company Name

Anna Platform
Facility Name

Reason for notification:

❑ **Excess Emissions**
If you checked this box fill out section 1

❑ **Other Deviation from Permit Condition**
If you checked this box fill out section 2

When did you discover the Excess Emissions or Other Deviation?
Date:__/__/__ Time:__:__

Section 1. Excess Emissions

(a) Event Information (Use 24-hour clock)**:**

	START Time**:** (hr:min):	**END** Time:	**Duration**
Date: _____	_____:_____	_____:_____	_____:_____
Date: _____	_____:_____	_____:_____	_____:_____
		Total:	_____:_____

(b) Cause of Event (Check all that apply)**:**

❑ START UP ❑ UPSET CONDITION ❑ CONTROL EQUIPMENT
❑ SHUT DOWN ❑ SCHEDULED MAINTENANCE ❑ OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed
_____	_____	_____
_____	_____	_____

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

❑ YES ❑ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

❑ YES ❑ NO

Section 2. Other Permit Deviations

(a) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: Signature: Date:

Alaska Department of Environmental Conservation

Air Permits Program

June 9, 2003

Union Oil Company of California

Anna Platform

Statement of Basis of the terms and conditions for

Permit No. 062TVP01

Prepared by Scott Bailey

INTRODUCTION

This document sets forth the legal and factual basis for the terms and conditions of Operating Permit No. 062TVP01.

FACILITY IDENTIFICATION

Section 1 contains information on the Anna Platform provided in the Title V permit applications. Anna Platform is an off shore oil drilling facility, SIC code 1311, producing natural gas and oil with some residual water in the oil. Natural gas-fired equipment includes turbines, a flare and engines used in the oil production process. Two turbines are dual fueled. Oil and natural gas are processed through oil/gas separators on the platform. Product oil/natural gas is pumped through underwater pipelines to the Granite Point Tank Farm (GPTF) for sale. The natural gas is also used for fuel on Anna Platform or flared.

The equipment at Anna Platform consists of four gas-fired turbines, two dual-fired turbines, seven gas-fired engines, one diesel electric generator set, two diesel cranes, one diesel fire water pump, one diesel compressor drive and a flaring system. A floating drill rig operates between the Unocal platforms in Cook Inlet including Anna Platform and contains two gas fired boilers, one dual-fired drilling turbine and two diesel drilling engines. Federal Prevention of Significant Deterioration (PSD) and Alaska Air Quality Regulations designate the area adjacent to Anna Platform as Class II.

The facility is owned and operated by Union Oil Company of California (Unocal), and Union Oil Company of California is the Permittee for the facility's operating permit.

SOURCE INVENTORY AND DESCRIPTION

Table 1 contains information on the sources at the facility as provided in the application, in Operating Permit 9423-AA010, amendment #3. Table 1 describes the sources regulated by the permit. The table is provided for information and identification purposes only. Specifically, the source rating/size provided in the table is not intended to create an enforceable limit.

The original air quality operating permit AQC 111B was issued to Amoco Production Company after December 30, 1976, renewed by the Department on July 6, 1978 as AQC 111C and was cancelled by the Department in April 1980. Amoco upgraded platform equipment beginning June 1985. Amoco sold Anna Platform to Unocal in 1991. Unocal received Operating Permit 9423-AA010 on October 7, 1994.

EMISSIONS

Table A contains emission information as provided in the application and a Department review of emission increases approved since the issue of a PSD permit in October 1994. A summary of the potential to emit (PTE)[7] from the Anna Platform based on the original Title V application and amendments received in February 2003 is shown in Table A.

Table A - Potential Emissions Summary, in Tons Per Year (tpy)

Pollutant	NO_x	CO	PM-10	SO_2	VOC	Total
PTE	339	267	61	14	2	683
Assessable PTE	339	267	61	14	0	681

The assessable PTE listed under condition 1.2 is the sum of the emissions of each individual regulated air contaminant for which the facility has the potential to emit quantities greater than 10 tpy. The potential regulated emissions for fuel burning equipment are based on AP-42 factors, source tests and vendor data.

BASIS FOR REQUIRING AN OPERATING PERMIT

Section 2 includes a description of the regulatory classifications of the Anna Platform. This facility is classified in 18 AAC 50.325 (b)(1), (b)(3) and (c) because it has a PTE of more than 100 tpy of a regulated air contaminant, contains fuel-burning equipment with a rated capacity of 100 million Btu per hour or more and is a PSD size facility with sources subject to Federal New Source Performance Standards (NSPS).

Alaska regulations require operating permit applications to include identification of "regulated sources." As applied to Anna Platform, the state regulations require a description of:

⇒ Each source regulated by a standard in 18 AAC 50.055, Industrial Processes and Fuel Burning Equipment, under18 AAC 50.335(e)(4)(C);

⇒ Each source subject to a standard adopted by reference in 18 AAC 50.040 under 18 AAC 50.335(e)(2); and

⇒ Sources subject to requirements in an existing Department permit 18 AAC 50.335(e)(5).

[7] *Potential to Emit* or *PTE* means the maximim quantity of a release of an air contaminant, considering a facility's physical or operational design, based on continual operation of all sources with the facility for 24 hours a day, 365 days a year, reduced by the effect of pollution control equipment and approved state or federal limitations on the capacity of the facility's sources or the facility to emit an air contaminant, including the limitations such a restrictions on hours of rate of operation and type or amount of material combusted, stored, or processed.as defined in AS 46.14.990(21), effective 1/18/97.

The emission sources at Anna Platform classified as "regulated sources" according to the above Department regulations are listed in Table 1 of Operating Permit No. 062TVP01.

CURRENT AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

The most recent permit issued for this facility is Air Quality Operating Permit 9423-AA010 and was issued before January 18, 1997. All facility-specific applicable requirements established in this previous permit, except those are included in the new operating permit as described below.

Title-V Operating Permit Application History

The owner or operator submitted an application on October 6, 1997.

The owner or operator amended this application in April and October 2002 and February 2003.

COMPLIANCE HISTORY

The facility has operated at its current location since 1967. Review of the current permit files for this facility, which includes the past inspection reports indicate a facility generally operating in compliance with its operating permit.

FACILITY-SPECIFIC REQUIREMENTS CARRIED FORWARD

State of Alaska regulations in 18 AAC 50.350(d)(1)(D) require that an operating permit include each facility-specific requirement established in a prior operating permit. The table below lists the permit condition that established a requirement in Operating Permit No. 9423-AA010 and the new condition in Operating Permit No. 062TVP01 that carries the old requirement into the new permit.

Table B- Comparison of Pre-January 18, 1997 Permit No. 9423-AA010 amendment #3, Conditions to Operating Permit No. 062TVP01 Conditions[8]

Permit No. 9423-AA010 Condition	Description of Requirement	Permit No. 062TVP01 Condition	How condition was revised
Introductory paragraph and Exhibits A thru D	Authority for permit and source list Record operating hours for each source monthly. Report liquid fuel sulfur content	Section 2, Section 3, Section 5, conditions 13, 57.5	New AQ regulations and permit format. New fuel sulfur analysis methods approved as part of 10/17/02 EPA Custom Fuel Monitoring Schedule. Operating hours modified to include owner requested IEU limits
1	comply with state air quality standards & increments	None	Now required only for construction permits
2	comply with most stringent emission standards, limits, specifications	Section 5 & Section 11	Standards, limits, specifications are now in several conditions
3	operate and maintain equipment to minimize emissions during startup and shutdown	6 & 20	Replaced by conditions 6 & 20
4	Operate Source ID 6 not more than 1000 hr/yr for routine testing	57.5	Source ID 6(now 15) classified as insignificant source and has an owner requested new reduced hour limit included in the permit.
5	Operate Source IDs 13, 34 & 35 not more than 120 hrs/yr each.	57.5	Source ID 13(now 14) classified as insignificant source and has an owner requested reduced hour limit included in the permit. Source IDs 34 & 35 mobile sources and not subject to Title V.
6	Operate Source IDs 24 & 25 not more than 2000 hrs/yr each.	None	These drilling rig mobile sources are not subject to Title V.

[8] This table does not include all standard and general conditions

Permit No. 9423-AA010 Condition	Description of Requirement	Permit No. 062TVP01 Condition	How condition was revised
7	Analyze each delivery of fuel oil for fuel sulfur level.	5.1 through 5.4	Same requirement, changed wording
8	Conduct source tests on Source ID 20 within 180 days after startup.	None	Source tests completed May 1997
9	Perform source test on any source in Exhibit A if requested by the Dept.	27	Same requirement for Table 1
10	Conduct source tests at maximum equipment rating	28	Same requirement, changed wording
11	Conduct source tests using the applicable Reference Method in 40 CFR 60 unless approved by ADEC	29	Same requirement, changed wording
12	Submit source test plans within 30 & 60 day windows specified prior to testing	33	Same requirement, changed wording
13	Written notification 10 days prior to testing	34	Same requirement, changed wording
14	Submit source test results	35	Same requirement, changed wording
15	Monitor equipment operating hours	13 & 57.5	Same requirement & owner requested limits for IEU equipment
16	Analyze each delivery of fuel oil for fuel sulfur level.	5.1 through 5.4	Same requirement, changed wording
17	Notify the Dept. by fax or phone of any excess emissions. Submit written excess emissions report within 5 days	24, 41	Changed to include reporting within 48 hours in condition 41
18	Access to the facility	51	Same requirement, changed wording
19	Submit 2 copies semi-annual Operating reports Jan. 30 & October 17	43	Same requirement, changed wording
20	Complete showing under 18 AAC 50.110 before start of new drilling operations	none	Rescinded 4/28/95
21	Maintain records	40	Same requirement, changed wording

LEGAL AND FACTUAL BASIS FOR THE PERMIT CONDITIONS

Applicability: The state and federal regulations for each condition are cited in Operating Permit No. **062TVP01**.

Conditions 1 - 2. Assessable Emissions and Fee Requirements

Applicability: This state regulation applies because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: These conditions require the Permittee to pay fees in accordance with 18 AAC 50.410 and the department's billing regulations in 18 AAC 50.420. The department's billing regulations set the due dates for payment of fees based on the billing date. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

The conditions also set forth how the Permittee may recompute assessable emissions. If the Permittee does not choose to annually calculate assessable emissions, emissions fees may be paid based on "potential to emit." Emissions from Source ID 19, gas flare, are based on the actual flaring volume in 2001 reported to the Alaska Oil and Gas Conservation Commission.

The PTE set forth for the Anna Platform in the condition is based on 0.5% by weight sulfur content or fuel gas with a sulfur content of 25 ppmv H_2S by volume. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the Permittee should reflect the actual sulfur content.

Condition 3 and Section 12. Visible Emissions Standard

Applicability: The visible emission standard 18 AAC 50.055(a)(1) applies to operation of industrial processes and all fuel-burning equipment in Alaska. Source ID(s) 1- 19 are fuel-burning equipment.

Factual basis: The condition cites the state visible emission standard applicable to fuel-burning equipment. The Permittee shall not cause or allow the boilers and engines to violate this standard. The monitoring, recordkeeping, and reporting requirements for visible emissions are listed in Section 12 of the permit. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

State air quality regulations adopted effective May 3, 2002 allow for an average six minute opacity observation. The existing regulation, limiting opacity to no more than 20% for more than 3 minutes in any one hour, is included because EPA Region X has not formally approved the changed opacity regulation as part of Alaska's State Implementation Plan (SIP).

There are two options for monitoring visible emissions. One option requires the Permittee to observe visible emissions in accordance with the state reference test method (i.e. 40 CFR 60, Method-9). The other option requires the Permittee to momentarily observe the exhaust for presence or absence of smoke. This latter option takes into account the difficulty and expense of getting certified readers to remote locations in Alaska.

Gas Fired:

Monitoring – The monitoring of gas fired sources for visible emissions is waived, i.e. no source testing will be required. The Department has found that natural gas fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify that only gaseous fuels are used in the equipment.

Liquid Fired:

Monitoring – The visible emissions are to be observed by using Method-9 as detailed in Section 12. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the operating report.

Dual Fuel-Fired Sources:

For Source IDs 5 and 6, as long as they operate only on gas, monitoring consists of an annual certification that only gaseous fuels were used in the equipment. When any of these sources operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in condition 55 is required for that source in accordance with recently issued Department Guidance AWQ 02-014. When any of these sources operates on a backup liquid fuel for less than 400 hours in a calendar year, monitoring for that source consists of an annual certification of compliance with the opacity standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Condition 4 and Section 12. Particulate Matter (PM) Standard

Applicability: The PM standard in 18 AAC 50.055(b)(1) applies to operation of all fuel burning equipment in Alaska. Source ID(s) 1 - 19 are fuel-burning equipment. The SIP standard for PM applies to all fuel-burning equipment because it is contained in the federally approved SIP dated October 1983. However, monitoring of flares for the particulate matter is waived, i.e. no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The Department has recognized this fact by incorporating the waiver in the State Implementation Plan adopted in November 1984 which has not been federally approved.

Factual basis: The condition cites the state particulate-matter emission standard applicable to fuel-burning equipment. The monitoring, recordkeeping, and reporting requirements are listed in Section 12 of the permit. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

The requirement to test for particulate matter to determine compliance with the standard is triggered by the results of visible emission observations, conducted in accordance with the state reference test method, only if the results show noncompliance with the visible emission standard or the average opacity.

Gas Fired:

Monitoring – The monitoring of gas fired sources for particulate matter is waived, i.e. no source testing will be required. The department has found that natural gas fired equipment inherently has negligible PM emissions. However, the department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify that only gaseous fuels are used in the equipment.

Liquid Fired:

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed and 2) results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the operating report.

Dual Fuel-Fired Sources:

For Source IDs 5 and 6, as long as they operate only on gas, monitoring consists of an annual certification that only gaseous fuels were used in the equipment. When any of these sources operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in conditions 57 and58 is required for that source in accordance with recently issued Department Guidance AWQ 02-014. When any of these sources operates on a backup liquid fuel for less than 400 hours in a calendar year, monitoring for that source consists of an annual certification of compliance with the particulate matter standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Condition 5. Sulfur Compound Emissions

Applicability: The sulfur emission standard in 18 AAC 50.055(c) applies to the operation of all fuel-burning equipment in the State of Alaska. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October 1983.

Factual basis: The condition re-iterates a sulfur emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow their equipment to violate this standard. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Diesel Fuel (Fuel Oil): Fuel oil sulfur is measured in weight percent sulfur. Calculation shows that fuel containing no more than 0.75% sulfur will always comply with the emission

standard. This is true for all liquid hydrocarbon fuels, even with no excess air. Verification of ASTM fuel grade as No. 1 or No. 2 fuel oil will certify compliance with the standard because these fuel oils always have a fuel sulfur content of no more than 0.5%. For fuels with a sulfur content higher than 0.75%, this condition requires the Permittee to use the equations in Section 14 to calculate the exhaust gas SO_2 concentration, showing whether the standard was exceeded. The equations in Section 14 are all based on stoichiometric mass balance.[9]

Fuel Gas: Fuel gas sulfur is measured as hydrogen sulfide, i.e. H_2S concentration in ppmv by volume. Calculations made by the Department show that fuel gas containing no more than 4000 ppmv H_2S would always comply with the exhaust emission standard of 500 ppmv SO_2. This is true for all fuel gases, even with no excess air. Since the current H_2S concentration in the fuel gas, measured by a length-of-stain detector, is less than 1ppmv the potential for exceeding the state emission standard during the current permit term is negligible. For Unocal facilities in Cook Inlet subject to NSPS regulations the EPA granted Unocal a custom fuel monitoring plan on October 17, 2002 for the current fuel gas source.

The Department approved, at Unocal's request, the alternate less accurate test method for measuring the H_2S concentration since the H_2S concentrations are much less than the concentration that would cause a violation of the 500 ppmv SO_2 emission standard. Equations to calculate the exhaust gas SO_2 concentrations resulting from the combustion of fuel gas are not included in this permit. Fuel gas with an H_2S concentration of even 10% of 4000 ppmv is not projected to be available at the Anna Platform during the life of this permit.

Conditions 6 - 9 NSPS Subpart A Requirements

Applicability: The Department has incorporated by reference the NSPS effective July 1, 2001, for specific industrial activities, as listed in 18 AAC 50.040. However, EPA has not delegated to the Department the authority to administer the NSPS program as of October 2002.

Most (with the exception of some storage tanks) sources subject to an NSPS are subject to Subpart A. At this facility, Source IDs 3 through 6 are subject to NSPS Subpart GG and therefore subject to Subpart A.

Factual Basis: Subpart A contains the general requirements applicable to all affected facilities (sources) subject to NSPS. In general the intent of NSPS is to provide technology-based emission control standards.

Conditions 10 - 11.1. NSPS Subpart GG Turbine NO_x Requirements

Applicability: NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59 degrees F, and 14.7 psi) equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr), based on the lower heating value of the fuels fired and constructed, modified, or reconstructed after October 3, 1977.

Factual Basis: Based on Unocal submittal of vendor's heat input rate the NSPS Subpart GG emission limits for NO_x are 150ppmv for Source IDs 3, 4, and 5. For Unocal facilities in

[9] http://www.state.ak.us/dec/dawq/aqm/newpermit.htm

Cook Inlet subject to NSPS regulations the EPA granted Unocal a custom fuel monitoring plan on October 17, 2002 for the current fuel gas source.

On February 7, 2003 Unocal requested that Source ID 6 be removed from the NO_x requirements of NSPS Subpart GG. This change was made based on updated vendor equipment build-date data and are pending receipt of an amended Title 5 application from Unocal and approval by Region 10 EPA prior to issuing the final permit.

The Department does not have enough information to make categorical determinations that certain types of turbines, or turbines with emission test results below a certain percentage of the Subpart GG NO_x emission limit will inherently comply with the Subpart GG limit at all times and will never need additional testing. After a sufficient body of NO_x data is gathered under monitoring conditions for compliance with 40 C.F.R. 60, Subpart GG, the Department may find that it has enough information to make such categorical determinations. In that event, the Department would revise the NO_x monitoring conditions. The Department may determine that to assure compliance it is necessary to retain or increase the current monitoring frequency.

These conditions do not include the initial NSPS performance test requirements. If a turbine under this permit is still subject to the performance test requirement of 40 C.F.R. 60.8, a source specific condition will be necessary.

The intent of these conditions is that turbines or groups of turbines be initially tested on a 5-year cycle. If no testing is required during the permit term, and if the same condition were used in the renewal permit initial testing could be on a 10-year testing cycle. After the first testing cycle, the Department intends to re-evaluate the necessary monitoring frequency.

The condition does not state how load must be measured. For some turbines it may be possible to directly measure load as either mechanical or electrical output. For others, it may be necessary to calculate load indirectly based on measurements of other parameters. The Department is not attempting to dictate what method is most appropriate through the permit condition, but should evaluate the adequacy of methods of calculating load based on the load monitoring proposed by the Permittee.

Subpart GG defines “emergency gas turbine” and exempts turbines meeting that definition from the GG emission standards. Some turbines may be operated as standby equipment but not meet the definition of emergency turbine, so the Department has added a Method 20 monitoring threshold of 400 hours per 12 month. For turbines expected to operate less than 400 hours the Department has also added recordkeeping for hours of operation. The Department does not intend to require the Permittee to operate a turbine solely for the purpose of testing.

The condition requires testing at a range of loads, consistent with the performance test requirements in Subpart GG, that is, test at 30, 50, 75, and 100 percent load. If testing at these four loads is not reasonable, the condition allows the Permittee to propose to the Department what test loads will be reasonable and adequate, and the Department will have the responsibility to make a finding on that proposal. If EPA has already approved alternative test loads for the initial performance test the Department would allow those test loads if the information that went into that decision were still representative of the turbine operation.

Load measurements or load calculations from load surrogate measurements are for one-hour periods. The intent is to match the averaging period for the test method. Method 20 identifies a number of traverse points that vary with the size of the stack. From these points the tester is to choose at least 8 points for NO_x measurements. The time at each point is to be at least one minute plus the average response time of the instrument. The recorded value is the average steady state response. Presumably, the steady state response would exclude some or all of the response time of the instrument. Three runs are to be done at each test load.

The three runs would represent 24 minutes of measurement time or more. A one-hour average load is therefore a reasonable approximation of a load period corresponding to the test method.

Condition 12 - NSPS Subpart GG SOx Monitoring, Recordkeeping, and Reporting

Applicability: This condition incorporates NSPS Subpart GG SO_2 emission and sulfur compound limits. The Permittee may not allow equipment to violate these standards. For Unocal facilities in Cook Inlet subject to NSPS regulations, the EPA granted Unocal a custom fuel sulfur monitoring schedule on October 17, 2002 for the current fuel gas source.

Factual Basis*:* Source IDs 3 through 6 are subject to the SO_2 emission standards in Subpart GG. Monitoring, recordkeeping, and reporting requirements for this condition are described in NSPS Subpart GG and in an EPA granted custom fuel sulfur monitoring schedule and have been referenced here. No additional monitoring outside of the Subpart GG requirements is necessary to ensure compliance with the NSPS SO_2 standard.

Monitoring: Condition 12.1 incorporates NSPS Subpart GG fuel sulfur monitoring requirements.

Recordkeeping: The Permittee is required to maintain records of all sulfur monitoring data required by NSPS Subpart GG for five years as set out in 18 AAC 50.350(h)(5).

Reporting: NSPS Subpart GG SO_2 custom schedule reporting requirements are incorporated in the permit in condition 12.1. In condition 12.7 the Department requests that a summary report of the results from the monitoring requirements in condition 12.1 be included in the Operating Report required under condition 43.

Conditions 13 Operating Conditions Carried Forward

Applicability: The applicable condition in Operating Permit 9423-AA010 are carried forward to this Title V permit. These conditions contain requirements to record operating hours so that emission levels may be calculated for all fuel burning equipment.

Operating hours for the flare were removed from this condition since some pilot gas is always burned and only those flaring events exceeding one hour are now reportable.

Factual Basis: These conditions contain requirements to monitor and record and operating parameters to provide an adequate basis for emission estimates and ambient impacts.

Conditions 14- 17 (Section 6). Insignificant Sources

Applicability: These state regulations apply because the Permittee is subject to the requirements in 18 AAC 50.055 (a), 18 AAC 50.055 (b)(1), and 18 AAC 50.055 (c)(1) as amended on May 3, 2002.

Factual basis: The insignificant sources section of the permit replaces the 1 MMBtu/hr gas fired source exemption of former permits. The regulations require the Permittee to report if an insignificant source becomes significant and certify that their insignificant sources comply with applicable requirements. Insignificant sources must comply with the air pollution prohibitions. These standard conditions restate the regulatory requirement.

Condition 14 requires certification that the sources did not exceed state emission standards during the previous year and did not emit any prohibited air pollution. The general emission standards in conditions 15 through 17 apply to all industrial process fuel-burning equipment.

State air quality regulations adopted effective May 3, 2002 allow for an average six minute opacity observation. The existing regulation, limiting opacity to no more than 20% for more than 3 minutes in any one hour, is included because EPA Region X has not formally approved the changed opacity regulation as part of Alaska's State Implementation Plan (SIP).

Condition 18. Asbestos NESHAP

Applicability: [18 AAC 50.040(b)(3) & 18 AAC 50.350(d)(1), 1/18/97]

[Federal Citation: 40 C.F.R. 61, Subpart M, 12/19/96]

If the Permittee engages in asbestos demolition and renovation, then these requirements may apply.

Factual Basis: The condition restates the prohibition on stack injection (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 19. Halon Recycling and Disposal

Applicability: Applies if the Permittee engages in the recycling or disposal of certain ozone depleting substances.

Factual Basis: The condition requires the Permittee to comply with the standards for recycling and emission reduction of halon compounds as set forth in 40 C.F.R. 82, Subpart F, that will apply if the Permittee uses certain fire supressants or refrigerants. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation.

Condition 20. Good Air Pollution Control Practice

Applicability: Applies to all sources, **except** NSPS regulated sources, i.e. Source IDs 3 through 6.

Factual basis: The condition requires the Permittee to comply with good air pollution control practices for all sources.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 21. Dilution

Applicability: Applies to the Permittee because the Permittee must comply with emission standards in 18 AAC 50.

Factual Basis: The underlying regulation is 18 AAC 50.045(a). The requirement prohibits diluting emissions as a means of compliance. In practical terms, dilution only affects compliance when the emissions are being measured. Careful reviews of source test plans and operating conditions should reveal any dilution as a result of the introduction of non-process air into the exhaust.

Condition 22. Stack Injection

Applicability: Applies to the facility because the facility contains a stack or source modified after November 1, 1982.

Factual Basis: The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 23. Open Burning

Applicability: [18 AAC 50.335(g), 1/18/97]

The Permittee has requested this condition.

Factual Basis: Extensive monitoring and recordkeeping is not warranted because the Permittee has requested a permit condition to exclude open burning at the facility.

Condition 24. Air Pollution Prohibited

Applicability: These state regulations apply because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.110 and 18 AAC 50 346. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 25. Technology-Based Emission Standard

Applicability: Technology Based Emission Standard requirements apply to the facility because the facility contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other "technologically feasible" determinations.

Factual Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 41. Excess emission reporting under condition 41 requires information on the steps taken to minimize emissions; the report required under condition 41 is adequate monitoring for compliance with this condition.

Condition 26. Permit Renewal

Applicability: Applies if the Permittee intends to renew the permit.

Factual Basis: The condition restates the regulatory deadlines, citing the specific dates applicable to the facility.

Condition 27. Requested Source Tests

Applicability: These state regulations apply because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.220 and 18 AAC 50.345. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Conditions 28 - 30. Operating Conditions, Reference Test Methods and Excess Air Requirements

Applicability: These state regulations apply because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.030, 18 AAC 040 and 18 AAC 50.220. These conditions restate regulatory requirements for source testing. As such, they supplement the specific monitoring requirements stated elsewhere in this permit. The department will use these standard conditions in any operating permit unless the

department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 31. Test Exemption

Applicability: Applies when the source exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 32 - 35. Extension, Test Plans, Notification & Reports

Applicability: These state regulations apply because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.345 and 18 AAC 50.346. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 36. Particulate Matter (PM) Calculations

Applicability: Applies when the Permittee tests for compliance with the particulate matter standard.

Factual Basis: The condition incorporates a regulatory requirement for particulate matter source tests. The Permittee must use a certain equation to calculate the particulate-matter emission concentration from the source test results.

Condition 37. Certification

Applicability: This State regulation applies to certification of reports because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.205, 18 AAC 50.350 and 18 AAC 50.346. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50. This condition restates the regulatory requirement that all reports must be certified. To ease the certification burden, the condition allows the excess emission reports to be certified with the semi-annual operating report, although the excess emission reports must be submitted more frequently.

Condition 38. Submittals

Applicability: Applies because the Permittee is required to send reports to the department.

Factual Basis: This condition merely specifies where submittals to the department should be sent. Receipt of the submittal at the correct department office is sufficient monitoring for this condition.

Condition 39. Information Requests

Applicability: This state regulation applies to information requests from the Department because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.200, 18 AAC 50.345 and 18 AAC 50.350. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 40. Recordkeeping Requirements

Applicability: Applies to records required by a permit.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 41. Excess Emission and Permit Deviation Reports

Applicability: This state regulation applies because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.200, 18 AAC 50.350 and 18 AAC 50.346. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 42. NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS and NESHAP federal regulations because the Permittee is subject tot he requirements in 18 AAC 50.040.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61.

Condition 43. Operating Reports

Applicability: [18 AAC 50.350(i), 1/18/97 & 18 AAC 50.346(b), 5/3/02]

Applies to records required by a permit.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 44. Annual Compliance Certification

Applicability: [18 AAC 50.220 & 18 AAC 50.350(j), 1/18/97 & 18 AAC 50.346(b), 5/3/02]

Factual Basis: This condition specifies the periodic compliance certification requirements, dues date for the annual compliance certification and require the notarized signature of a responsible official. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Conditions 45 - 51. Standard Conditions

Applicability: These state regulations apply because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulation is 18 AAC 50.346. These standard conditions meet the requirements under the Clean Air Act for demonstrating general compliance with a Title V permit. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 52. Permit Shield

Applicability [18 AAC 50.350(l), 1/18/97]

Applies because the Permittee has requested a shield for the applicable requirements listed under this condition.

Factual Basis: Table C explains the permit shield requests, which were not granted, and the department's Applicability determination. The permit conditions sets forth the requirements that the department determined were not applicable to the facility, based on the permit application, past operating permit, construction permits and inspection reports.

Table C. Permit Shield Decision

Shield requested for:	Shielded	Reason for shield decision
40 C.F.R. 61, Subpart M	No	Removing asbestos makes facility subject to 40 C.F.R. 61
Facility 40 C.F.R. 82 F	NO	Facility contains halon fire fighting equipment.

Conditions 53 - 58. (Section 12)- Visible Emissions and PM Monitoring Plan (Fuel Gas and Liquid Fuel)

Applicability: Applies because these conditions detail the monitoring, recordkeeping, and reporting required in conditions 3 and 4.

Factual Basis: Each permit term and condition must include MR&R requirements showing verifiable compliance with each permit term and condition. The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Facility Operation and Maintenance Program, that the facility is in continuous compliance with the State's emission standards for visible emissions and particulate matter. The correlation between particulate matter and visible emissions that is the basis for this monitoring procedure is discussed under conditions 3 and 4.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter standards for liquid and gas fired sources. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Monitoring frequencies for hydrocarbon fuels, both liquid and gaseous, are detailed in these conditions. The monitoring intervals for gaseous fuels are less frequent than for liquid fuels in recognition of the reduced propensity of gaseous fuels to produce particulate matter as a result of combustion. This reduced level of monitoring for individual facilities in conjunction with the very large number of gas fired sources in Alaska should provide the department with sufficient data to evaluate the compliance history of these sources as a category.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from sources either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Insignificant Sources:

Unocal amended the Title V Operating permit application in February 2003 certifying that Source IDs 14 through 18 are insignificant emission units(IEUs) based on the owner requested limits on operating hours. As long as the source does not exceed the operating hour limit it is insignificant for emissions as specified in 18 AAC 50.335(r) and no monitoring is required in accordance with Department Guidance AWQ 02-014 issued April 2, 2002. The Permittee must annually certify compliance under condition 43 with the opacity standard.

Condition 59. Visible Emission Monitoring for Flares

Applicability: Apply because these conditions detail the monitoring, recordkeeping, and reporting required in condition 3 for gas-fired flares.

Factual Basis: Monitoring of the flare, Source ID 19, requires Method-9 observations of scheduled flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

The original condition for flare monitoring, jointly developed by the Department and the Alaska Oil and Gas Association (AOGA) was originally developed to provide a standardized version of flare monitoring that is not dependant upon the type of upstream treatment equipment. It has been assumed that gas-fired "smokeless" flares normally burn without emitting visible emissions, but actual field data demonstrating this assumption is not available. However, gas-fired flares have been shown to smoke when a control device - a knockout drum, flare scrubber, gas or steam assist, or vapor recovery system-malfunctions. Thus, the original protocol set out a method to collect actual field data to support the "smokeless" assumption and requires corrective action to correct malfunctions.

Since it is impractical to require facilities to have a certified Method-9 opacity reader on site for an unpredictable emergency flare event, the monitoring protocol requires Method-9 readings only during predictable and quantifiable flare events. Predictable and quantifiable events are defined as those generated by scheduled maintenance activities or non-upset modes of operations as well as planned startup and shutdown events.

Record keeping and reporting is designed to facilitate data collection. It is believed that the six observations of "smokeless" flare events in the standard condition should be sufficient to reduce monitoring to a minimum contingent upon the assurance that all control devices are operating acceptably.

Unocal completed two sets of flare visible emission monitoring, one on September 21, 2002 and the other on January 18, 2003 and submitted the results to the Department on February 7, 2002.